

UNITED STATES DISTRICT COURT  
DISTRICT OF RHODE ISLAND

UNITED STATES OF AMERICA

v.

CR No. 97-029-T

SANDRO MARTINEZ

**MEMORANDUM OF DECISION**

ERNEST C. TORRES, United States District Judge.

Sandro Martinez pled guilty to a one count indictment charging him with possession of cocaine with intent to distribute in violation of 21 U.S.C. § 841(a)(1) and (b)(1)(A). It is undisputed that the cocaine consisted of 131.45 grams of "cocaine base" and 9.43 grams of "cocaine powder." The probation officer treated the 131.45 grams as "cocaine base" within the meaning of U.S.S.G. § \_\_\_\_\_. Accordingly, she computed the base offense level to be level 32. See U.S.S.G. § 2D1.1(c)(4) and Note 10. Martinez argues that for Guideline purposes, only that form of "cocaine base" known as "crack" is considered to be "cocaine base." Therefore, he contends the 131.45 grams should be treated as "cocaine" thereby resulting in a base offense level of 18.

**Discussion**

I. The Manufacturing Process

In order to put the issue in proper perspective, it is necessary to begin with a brief discussion of the manner in which cocaine is produced. The process has been described in various reported decisions [cite] and was touched upon by the testimony of \_\_\_\_\_.

Cocaine sold on the "street" is derived from the coca plant.

It begins as a paste extracted from the plant's leaves. The paste contains cocaine base that has the molecular formula of  $C_{17}H_{21}NO_4$ . The cocaine base is treated with hydrochloric acid to produce cocaine hydrochloride.

Cocaine hydrochloride takes the form of a powder and has the molecular formula  $C_{17}H_{22}ClNO_4$ . Since cocaine hydrochloride, also known as cocaine powder, is highly soluble, it may be ingested by snorting or intravenous injection. However, its melting point is too low to permit it to be smoked. For that reason, cocaine powder, sometimes, is processed further to convert it back to a form of cocaine base called "crack."

"Crack's" molecular formula is identical to the formula for the paste form of cocaine base. The two are distinguishable by their physical appearances. "Crack" takes the form of dense porous granules that cluster together in rocklike lumps and are oily to the touch. Because it has a higher melting point than cocaine powder, it may be ingested by smoking.

## II. Proof that a Substance is "Cocaine Base"

The term "cocaine base" was defined by the 1993 amendments to the Guidelines as follows:

'Cocaine base ,' for the purpose of this guideline means 'crack.' 'Crack' is the street name for a form of cocaine base, usually prepared by processing cocaine hydrochloride and sodium bicarbonate, and usually appearing in a lumpy, rocklike form.

U.S.S.G. § 2D1.1(c), Note (D).

Under that definition, "cocaine base" means only that form of cocaine base commonly known as "crack." Consequently, in order for

the government to establish that a substance is "cocaine base" it must prove:

1. that the substance is cocaine base; and
2. that the substance is the particular form of cocaine base that, on the street, is known as "crack."

As already noted, cocaine base and cocaine powder (i.e., cocaine hydrochloride) have different molecular structures as well as different chemical and physical properties. Because of that cocaine base is identified and distinguished from cocaine powder through a variety of laboratory tests including a solubility test and an infrared spectrophotometry test. Therefore, proof that a particular substance is cocaine base requires scientific evidence. United States v. Lopez-Gil, 956 F.2d 1124, 1135 (1st Cir. 1992).

By contrast, "crack," as a form of cocaine base, has the same molecular formula and properties as any other form of cocaine base. It differs from other forms of cocaine base only in its physical appearance. Accordingly, persons on the "street" distinguish "crack" on the basis of its dense porous granules, rocklike lumps and oiliness. See United States v. Sloan, 97 F.3d 1378, 1382 (11th Cir. 1996) (coca paste and crack are "distinct physical forms" of cocaine base). Thus, proof that a particular form of cocaine base turns largely on its physical appearance and evidence from those familiar with it and knowledgeable about how those on the "street" identify it. See United States v. Stewart, 122 F.3d 625, 627-28 (8th Cir. 1997) (finding undercover detective's testimony sufficient to establish that the cocaine base was "crack").

Scientific evidence is not required because there is no scientific basis for distinguishing "crack" from any other form of cocaine bases.

In this case, the government has proven both of the required elements. The analysis performed by the Rhode Island Department of Health and the testimony of Gino Rabussini, a drug chemist, establish that the 131.4 grams of substance possessed by Martinez was cocaine base. In addition, the testimony of Sgt. Lussier, a police officer with considerable training and experience in narcotics investigations and undercover drug operations establishes that the substance had the physical appearance of "crack;" that it was in a form commonly referred to on the "street" as "crack" and that, in his opinion, it was "crack." Nothing further was required.

#### Conclusion

For all of the foregoing reasons, I find that the probation officer was correct in treating the 131.4 grams, in question, as "crack" and in calculating the base offense level to be level 32.  
IT IS SO ORDERED:

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Ernest C. Torres  
United States District Judge

Date: \_\_\_\_\_

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